

Hornwort in the Guppy Fish room

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Few would argue against the beauty living plants add to an aquarium, but keeping them alive and healthy can be a lot of work and a lot of additional expense, causing enough frustration to account for their decline in popularity in the aquarium hobby at large. A lot of them require costly lighting, special substrates, CO2 supplements, even fertilizer with trace elements to keep them looking at their best. Even with all that cost and effort, algae often spoil the party.

There is a live plant that does not produce roots that can overcome all of the negatives generally associated with planted aquaria. That plant is Hornwort. There are 2 species in the aquarium hobby; the most common is *Ceratophyllum Demersum*. The first things I will say about this plant are that it is both easy and beautiful. I have seen this species in almost every body of fresh water I have gone fishing on in the Eastern half of the USA. (AKA coontail) It could be considered an invasive plant in areas it is non-native, check local restrictions. There is a less commonly seen tropical species called *Ceratophyllum submersum* that is now rarely found but occasionally still available from hobbyists if you search aquarium forums. I don't have any personal experience with that species.

Hornwort is a plant that is able to survive and thrive in most aquarium situations, even if kept without electric lighting in a bright room not too far from a window. It is somewhat copper sensitive, so algae killers might cause it to drop leaves. Trouble growing Hornwort can be caused by copper plumbing in the building. Copper plumbing can also be the cause of fish deaths, I have some friends who had trouble keeping guppies until they got rid of a corroded copper fixture.

A fair number of other aquarium chemicals that are supposed to be harmful to plants don't seem to bother it much though.

A ten dollar 4 foot fluorescent shop light over a row of tanks is plenty to keep it thriving at its best. I have a 55 gallon tank with 34 watts of lighting, probably less since the bulbs are old, that is still supporting nice growth on 2 year old fluorescent bulbs. I have hornwort in

unlit tanks near windows even on the shady side of the house, and a shop light on top of a row of seven 2.5 gallon tanks. For display tanks, it is one of the few plants that will do well with the cheapest light hoods most tank combos come with. It is also one of the only plants that will actually look at its best in weak to moderate lighting conditions; if grown under too much light it will be more compact and dense and less attractive. Under very low light it will get leggy, but overall hornwort is about the least fussy plant I know. It works well in tanks with air driven filters. It is a nutrient sponge and can extend time between water changes greatly if there is a lot of it in a tank. A little salt won't bother it but large amounts might. It offers some protection against severe ammonia spikes if filtration fails due to power interruption or a child dumps a half pound of food into a tank, and virtually eliminates new tank syndrome and tank cycling problems if there is a good amount in the tank. Its only disadvantages are the fact it is a floating plant without roots, and the fact its stems are fairly brittle. It is a very fast grower, I have seen it grow up to 6 inches a day under ideal conditions, and I suppose that could be a disadvantage as well. If it becomes covered with algae, pinch off an inch or so of the growing tips, wipe them clear of algae with your fingers, and return the small pieces to the tank. Remove the bulk of the algae coated plant and discard. The tanks will be re-covered from the small pieces you put back in the tank in a week or so. It will form a lush carpet several inches deep from the top down in a tank if you let it. Algae or not, you will be removing buckets full of it every few weeks if you have a lot of tanks. It will out-compete some types of algae for nutrients.

The fish seem to be happier in planted tanks in my opinion, and hornwort is very compatible with individual bare bottom tanks. If you have some in your breeder tanks, you might even be able to eliminate any need for separate drop tanks, it is excellent fry protection. If the tanks have overflow spillway type filters, it should be weighted to the bottom so as not to plug the intakes. Every week or so you will need to remove most of the growth and re-weight a small piece or pieces to the bottom of the tank. Once the tanks become covered, you will either need to remove most of it or push it aside momentarily to feed the fish. I usually just remove it to a bucket if I need to net any fish. Hornwort is becoming less available in the aquarium trade because it is a plant that only gets the store one sale; there is little profit in that. If you find a local store that sells commercially produced bunches, I recommend pinching off 2 inch pieces from the growing tips, letting those float, and discarding the bunches after the pinched off pieces start to re-grow. (Beware of snails and snail egg masses, that is reason enough to just pinch, carefully inspect, and use the tips.) The commercially available plants grown outdoors are much less attractive than tank grown, and you won't have to wait long. In my personal opinion, no guppy tanks should be without a sprig of this plant, and everyone should send a sprig along with any guppies they ship to newcomers to the hobby. (Assuming it isn't prohibited in the States involved.) I would love to see a sprig in every show bowl after fish are judged as well, it wouldn't cost a club anything if it were optionally within the rules. I have seen picture on the internet of guppy shows outside the USA that exhibited all guppies with a live plant sprig, and I think it added to the beauty of the fish. Give it a try, if it becomes popular enough in the hobby, who knows?

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